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United States Patent [19]

Moshovos et al.

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[54] **TABLE BASED DATA SPECULATION
CIRCUIT FOR PARALLEL PROCESSING
COMPUTER**

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[57] ABSTRACT

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A predictor circuit permits advanced execution of instructions depending for their data on previous instructions by predicting such dependencies based on previous mis-speculations detected at the final stages of processing. Synchronization of dependent instructions is provided by a table creating entries for each instance of potential dependency. Table entries are created and deleted dynamically to limit total memory requirements.

[51] **Int. Cl.⁶** G06F 9/38

[52] **U.S. Cl.** 395/392

[58] **Field of Search** 395/392

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9 Claims, 7 Drawing Sheets